



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,706	01/30/2004	Hank E. Millet	0315-487/COD	8725
27572	7590	03/20/2008	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			FREAY, CHARLES GRANT	
			ART UNIT	PAPER NUMBER
			3746	
			MAIL DATE	DELIVERY MODE
			03/20/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/769,706	MILLET ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Charles G. Freay	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 21 December 2007.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 3-5,7,8,11-13,15,16,18,19 and 21-34 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 3-5,7,8,11-13,15,16,18,19 and 21-34 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 30 January 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/2007</u> .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

This office action is in response to the amendment of December 21, 2007. In making the below rejections the examiner has considered and addressed each of the applicant's arguments.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drawings must completely show the compressor rack, meaning that there are common inlet and outlet manifolds for the plural compressors, this arrangement must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 31-34, 15, 16, 18, 19, 21 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. New independent claim 31 sets forth a compressor having a housing, a controller disposed on the housing and a communication gateway disposed on the housing. The original disclosure does not teach of both the controller and the communication gateway being disposed on the compressor housing. Reference is made to Fig. 11 where the compressor housing (10) is shown to have only the controller disposed thereon and the communication gateway is disposed remotely therefrom.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24-26, 28-30 and 32-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are vague and indefinite because each of these claims makes reference to one of the serial peripheral interface protocols which are trademarked. Because the actual protocol or communication standard underlying the trademark (LonWorks, TCP/IP or BACnet) can change the scope of the claims are not clear.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 23-34, 3-5, 7, 8, 11-13, 15, 16, 18, 19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hull et al (USPN 6,487,457) in view of Clack et al (USPN 6,017,192).

Hull et al discloses a cooling system for a building including a control network (306, 318 in Fig. 3 or 410 in Fig. 4) with plural compressors (312 and controllers 308 or 422). The controllers having a serial peripheral interface (424, see also 430, 408, 426). There is an internet web server (304, 400) which acts as a gateway and there are additional gateways (316, 414) shown connected to other networks. There is additionally a local server (314) communicating with the other controllers and the web server communicates with other client controllers (300). The server (304) acts as a system master or the client controllers act as system masters. As set forth in the abstract various data related to equipment descriptions locations, contact information for alarms, utility rate information and manufacturer and vendor information is stored in the building management system and event histories (see col. 7) are generated and communicate between the controllers. Hull discloses that the controllers (308, 424) function as a gateway. Hull also notes that the server (304) could be connected to the Echelon network (col. 6 line 25). Hull does not disclose that each compressor is part of a compressor rack or that each compressor has a controller associated therewith or that there are plural sensors connected to the controller. Clack discloses a compressor rack

and control system (Fig. 1) having plural compressors (115) with each compressor having a controller (105). The controllers are associated with plural sensors (note col. 6). As set forth at col. 3 line 35 the compressor controller includes a microprocessor. Also, at col. 7 lines 16-30 make it clear that the gateway (240) can be used to communicate the controllers with various well known network protocol systems/serial peripheral interfaces (Echelon or RS-485). At the time of the invention it would have been obvious to use a compressor rack and controller arrangement as disclosed by Clack et al in the Hull et al system in order to provide an integrally controlled refrigeration system to the architecture which the BMS is managing.

The examiner notes that the various types of serial peripheral interfaces set forth in the claims (BACnet, LonWorks, TCP/IP) are well known and standardized network protocols and one of ordinary skill would understand that the teaching with regards to one of these serial interface types are applicable to the other serial interface types of protocol. Choosing the appropriate protocol interface would have been obvious to one of ordinary skill in the art based upon the existing or future equipment in order to make the provided compressor rack and system simpler to integrate.

With respect to the recitation of the types of data or to the recitation of a specific data element throughout the claims (and in particular claims 7, 8, 15, 16, 21 and 22) as noted above Hull et al and Clack et al each disclose specific data types as claimed. However, it is additionally noted that the reference to the type of data is directed to nonfunctional descriptive material and does not further alter how the data is transmitted, received or stored between the controller and the system master. Thus, this descriptive

material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 23, 27, 3-5 and 11-13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 9-16 and 18 of copending Application No. 10/769703 in view of Hull et al. The claims of the ('703) application disclose a cooling system having a compressor rack with plural compressors and associated controllers communicating through a communication gateway with a system master, as claimed. The ('703) application does not set forth that

the gateway uses a serial peripheral interface. As discussed in the above rejections Hull et al discloses a remotely accessible building information and management system having gateways communicating through serial peripheral interfaces (424, 430, 408 and 426). At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize a serial peripheral interface as a well known standardized mechanism for allowing various components of a network to communicate with one another.

This is a provisional obviousness-type double patenting rejection.

Claims 23-34, 3-5, 7, 8, 11-13, 15-19, 21 and 22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22, note especially claims 1, 9, and 17-22 of U.S. Patent No. 6,302,654 in view of Hull et al. The claims of the ('654) patent discloses a compressor rack and control system as claimed but does not specifically discuss that the system controller is operable to or capable of storing and retrieving data from the local controllers or assuming control of the local controllers. Hull et al as discussed in the above rejections sets forth a control system having a system master operable to or capable of storing and retrieving data from the local controllers or assuming control of the local controllers. At the time of the invention it would have been obvious to one of ordinary skill in the art to have the system controller be capable or operable to store and retrieve data from and to control the local controllers in order to allow a remote operator to monitor and control the system.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Frank et al discloses a control system utilizing a system master which controls local controls through a gateway utilizing a serial peripheral interface.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G. Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/  
Primary Examiner  
Art Unit 3746

CGF  
March 15, 2008